ALSO: A Disruptive Innovation in Emergency Obstetrics in Mexico

Mexico
Haywood Hall

Teaching ALSO

Key Providers and future instructors in Central Mexico
**Concise Summary:** Help us pitch this solution! Provide an explanation within 3-4 short sentences.

The Project creates a common language and methodology for managing obstetrical emergencies ("Chain of survival") across the entire spectrum of care by using a short, highly focused, evidence and competency based training program, and which uses manikins and mnemonics to develop critical psychomotor skills to manage post partum Hemorrhage and Pregnancy induced Hypertension / Eclampsia and other obstetrical emergencies. A Basic Obstetrical Life Support / First Aid-First Responder course is developed for midwives which further opens venues for integration, training, certification of skills, and activation of the pre-hospital system in remote settings. The Advanced Life Support for Obstetrics Program (ALSO) is used to recruit and develop leadership from government, academic, emergency services and other and community sources (physician to midwife) to standardize care and to better integrate community based emergency obstetrical care into the health care system at a state and local level.

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**Your idea**

- **Focus of activity**
  - Policy/institutional change
- **Year the initiative began (yyyy)**
  - 2006

**Positioning of your initiative on the mosaic diagram**

- **Which of these barriers is the primary focus of your work?**
  - Monopolies of knowledge
- **Which of the principles is the primary focus of your work?**
  - Push work down the chain of command

If you believe some other barrier or principle should be included in the mosaic, please describe it and how it would affect the positioning of your initiative in the mosaic:

This field has not been completed

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**Innovation**

**Define the innovation**

The Project creates a common language and methodology for managing obstetrical emergencies ("Chain of survival") across the entire spectrum of care by using a short, highly focused, evidence and competency based training program, and which uses manikins and mnemonics to develop critical psychomotor skills to manage post partum Hemorrhage and Pregnancy induced Hypertension / Eclampsia and other obstetrical emergencies. A Basic Obstetrical Life Support / First Aid-First Responder course is developed for midwives which further opens venues for integration, training, certification of skills, and activation of the pre-hospital system in remote settings. The Advanced Life Support for Obstetrics Program (ALSO) is used to recruit and develop leadership from government, academic, emergency services and other and community sources (physician to midwife) to standardize care and to better integrate community based emergency obstetrical care into the health care system at a state and local level.

**Context for Disruption:**

Maternal Mortality in Mexico is highest in the states of Chiapas, Oaxaca, Guerrero, Veracruz, Puebla and the State of Mexico. The American...
Academy of Family Physician's Advanced Life Support for Obstetrics course has been taught around the world to over 60,000 providers and has
developed more than 2,000 instructors. The program began in Mexico in the state of Guanajuato in 2006 through the efforts of emergency care
community activists (www.pacemd.org), in coordination with health care officials, academics and leaders in midwifery care (CASA). The Ashoka
Organization brought together Diana Damian and Dr Haywood Hall, Director of the PACEMD organization and plans were developed to extend the
ALSO program into high risk regions of Mexico in a way that would promote infrastructure change, using Chiapas as a model.

**Delivery Model**

The Life Support for Obstetrics program extends itself from its base in Guanajuato, where potentially replicable alliances have been formed
between government and academic obstetricians, professional midwives and community based emergency medicine activists.

1. Integration of care / common language across the provider spectrum by focusing on the needs of the patients and algorithms of care, rather than
the training and background of the obstetrical provider. The program models itself after on critical path / “Chain of survival” concepts used in
Emergency Medical Services whereby, as an example, in the case of cardiac care, all providers, from bystanders who provide CPR, to Advanced
Cardiac Life Support medical providers further the management of patient care, to the best of their capacities. The same life saving protocols are
across the entire health care spectrum.

2. Integration of Midwives and health promotores into the formal pre-hospital system by fusing First Aid / First Responder Training with a Basic Life
Support for Obstetrics course.

3. Development of a stable state level faculty for the Advacned Life Support for Obstetrics program in the States of Chiapas, Guerrero, and
Oaxaca, as first steps towards a self sustaining National program in Life Support for Obstetrics in Mexico.

4. Development of the Basic Life Support Course in English for use in the developed countries as a mechanism to fund international ALSO
Programs as well as to create on line ALSO/BLSO didactic program.

**Key Operational Partnerships**

- Dr. Jorge Mora Tapia (ObGyn) – Program Director- ALSO Mexico. Chairman, ObGyn Department, Guanajuato School of Medicine and General
Hospital in Leon
- Dr Jorge Delgado (ObGyn) – Training Director – ALSO Mexico. Director of Graduate Medical Education , University of Guanajuato Medical School
- Dr. Haywood Hall (Emergency Medicine) – Director, PACEMD Program, Director of ALSO Program in Mexico
- Dr. Noe Arellano (Emergency Medicine) –President of the Guanajuato Emergency Medicine Society – ALSO National Faculty –
- Dr Armando Perez – (Pubic Health / Family Medicine) Director of Public Health, State of Guanajuato Health Ministry. ALSO Mexico Research
- Diana Damian Placencia - Ashoka Fellow / McArthur Fellow. Promotore and Midwife trainer in Chiapas.
- Lic Fabiola Zarate – Midwife – Director of CASA Midwifery School
- Dr. Larry Leeman, MD – (FP) International Faculty, University of New Mexico
- Rebecca Leeman (Midwife) – International Faculty, New Mexico
- Dr Lee Dressang, MD (FP) International Faculty, University of Wisconsin
- Dr. Theresa Gipson, MD (FP) International ALSO Faculty
- Dr William Arreaga – Director ALSO Guatemala
- Dra. Carolina Bustos –Director ALSO Honduras
- Dr. Galo Sanchez- Director ALSO Ecuador

**Impact**

**Financial Model**

The Physician Specialist who are most knowledgeable in the technical area of emergency obstetrics are in high demand clinically. Those
associated with us are of the highest motivation to assist in the development of infrastructure for emergency obstetrical care. By
professionalism and for humanitarian reasons alone, we can expect their participation is our courses. However, to create a sustainable program,
we are required to pay a token amount to these physicians to maintain a high level of commitment. There is a significant amount of “in kind”
contribution.

Once State faculty is trained, the ALSO program can be largely self sustaining , charging tuition for physicians at levels consistent with market
demand, often to the Health Ministry or to IMMS as has been done by the PACE Team. The BLSO + program can be provided at a more
economical costs, if there is significant ALSO activity, either running in parallel with the ALSO course , or by running special BLSO courses ,
taught by BLSO instructors who come from midwifery, nursing and pre hospital backgrounds) . The BLSO program requires an active ALSO
program as well for quality control purposes and to achieve a program “critical mass”locally and to have its cost partially absorbed by the
program.

What is your annual operating budget?

$300,000

What are your current sources of revenue? (please list any sources that are foundation grants)

Our budget will be $300, 000 for this dissemination program which can be completed in 12 - 18 months.

We have no foundation grants at this time, but are searching. The program has generated some revenue from tuition. The PACEMD Program
has been at least in part supported by the MedSpanish program, a program which teaches US Medical personnel how to communicate with
Spanish speaking patients and which is a separate entry in this competition. There has been a large in kind contribution component to our programs.

Effectiveness

We have received various anecdotal reports of lives being saved because of our training, one witnessed by Diana Damian who is another Ashoka Fellow in Chiapas. We have trained over 220 people in the ALSO provider course and over 20 people in the instructor course in one year. We have brought together various health care providers who are normally isolated from each other and who now are pre disposed to work as a team to mitigate maternal mortality. We have brought “chain of survival” / critical path concepts to the management of the unstable or potentially unstable mother in the field and in the hospital, and re-enforced the need for standardization of care. We have injected new energy into competency based, community based training and the development of psychomotor skills. We have had curious and delighted federal and state health ministry officials review and participate in the ALSO course. We are developing innovative ways of having midwives included as part of the EMS system.

We will measure the specific competencies pre and post test for Providers and instructors of the ALSO and the BLSO courses, and evaluate the management of high risk cases (comparing them to non trained providers) at 3 months, 6 months and 1 years by chart reviews at designated primary, secondary and tertiary care medical centers catchment areas where the programs will be concentrated. We will also attempt to capture pre-hospital data (paramedic and midwifery referrals) at the same centers. We plan to work through Health Ministry / Public Hospitals.

There is an International ALSO conference in February of every year where we can present our results to a larger group for critique and dissemination. (Hall, Mora, Delgado, Damian)

Which element of the program proved itself most effective?

Effectiveness elements:

1. Multidisciplinary collaboration / transformation of infrastructure.
2. Emergency Medicine as a vital link between providers.
3. Evidenced based course sensitivity to “best practices”.
4. Use of manikins and mnemonics to develop psychomotor skills.
5. Focus on the management of immediately life threatening condition of Post Partum Hemorrhage and Pregnancy induced Hypertension /Eclampsia.
6. There is now an active dialog and joint training and planning between CASA midwives and Health Ministry personnel in one of the most conservative states in Mexico.
7. The Health Ministry is planning to integrate our course into their system for training their physicians and other health care providers.

Number of clients in the last year?

About 220 ALSO Providers have been trained in the 2 day course as well as approximately 20 instructors (about ½ remain active). Each ALSO providers cares for many, many patients over their professional life time and affect the training of others.

What is the potential demand?

Maternal Mortality is at unacceptably high levels. The targets of the program are those health care providers who provide care.

The ALSO course is directed at Ob Gyn Physicians and other specialists and generalists who attend to births on a regular basis. This includes physicians, residents and interns. There are hundred of these in each state targeted.

The BLSO will be targeting physicians and health care workers who occasionally attend to births (no instrument deliveries of C Sections), there are thousands of these in each target states.

The BLSO + (first Aid / First Responder) will be directed at professional Midwives and TBAs and there are many hundreds of these in each state.

Scaling up Strategy

1. BLSO + Development at CASA
2. ALSO Core team for Chiapas (4 in Guanajuato ALSO course)
3. ALSO Dissemination course in Chiapas (International team)
   a. Core Trainees from Guerrero and Oaxaca as well
4. BLSO + parallel course in Chiapas
   a. Establish a First Responder BLSO+ course to integrate midwives into the pre hospital system (including training and chain of survival referral linkages).
   b. Develop BLSO+ local faculty
5. Establishment of State ALSO Faculty at each of the target states (Chiapas, Guerrero, Oaxaca) and to generate interactivity between those states and the ALSO programs in Guatemala and Honduras which care for similar populations.
6. Conversion of the Guanajuato Faculty to National Faculty.
7. Development of ALSO/BLSO didactic elements on line to allow shorter course times and to assure compliance with didactic training
8. Development of BLSO in English as a mechanism to raise funds for the International ALSO program.

Stage of the initiative:
Expansion plan:
In addition to the scaling up plan described above, the ALSO program will integrate itself into State Health Ministry training programs and plans to become a standard of training, much the way Advanced Cardiac Life Support (ACLS) and Advanced Trauma Life Support (ATLS) has become. We will continue to look for various funding mechanisms to decrease the costs of the courses. As there are more courses provided, we expect that an economy of scale will be achieved, further reducing the cost of the course.

Origin of the Initiative
Please see the founder's personal narrative (www.pacemd.org/id51.html), as well as other Change makers entries (past and Present).

At our BLSO planning meeting with Health Ministry physicians, Medical School Faculty, CASA Midwives, Community Emergency Physician activists as our collaborator from Chiapas, Diana Damian (from Chiapas) told the group how in the past week, a woman’s life was saved due to the training that she received in the ALSO course earlier this year. We were all deeply moves by the effect of our collaboration.

Sustainability

What are your two main challenges to finance the growth of your initiative
1. Those with the skills and knowledge are very busy, already work in the public sector and the course pulls them away from the private parts of their practices by which they actually support themselves. It is possible to find people to volunteer for a weekend or two, but other incentives (financial and professional) have to be found to compensate the physician specialists that we recruit.

2) The courses attempt to sustain themselves through charging tuition for the courses it offers. The courses require a significant amount of preparation and logistical considerations. Their can be considerable energy spent "selling" the course to individual physicians. The best method is to contract with the Health Ministry or other agency on a larger scale, but it is difficult to have Mexican bueracracies respond. An impressive dedicated team is required to get support and it is important to maintain momentum once expectations begin to be considered.

How did you hear about this contest and what is your main incentive to participate?
I am an Ashoka Fellow, collaborating with another Ashoka fellow from Chiapas.

The Story

Do you have an annual financial statement?
We have a financial analysis of the ALSO course which have been given so far in the last year.

Do you currently have an annual financial statement that tracks profit/loss?
As above. Our program is at the end of the start up phase and therefore has not been profitable. We anticipate that the course will generate revenue for re-investment in the program within the next 6 months to a year.

Please describe the amount (and/or type) of funding you need to implement your initiative, at year 1 and at year 5.

- Tuition and support for 4 BLSO + (Midwife EMS courses)
  - 200 Chiapas Midwife First Responders trained ($200 per student) $ 40,000

- Equipment for 4 State Level ALSO Training Centers (GTO, Oaxaca, Guerrero and Chiapas)
  - 24 Pelvic Manikins $18,000
  - 24 Low outlet Forceps $ 2,400
  - 24 Kiwi Vacuum Extractors $ 3,000
  - 4 Neonatal Resuscitation Stations $ 8,000
  - Pre Hospital First Responder / First Aid (EMS) Training equip $10,000
  - Presentation Laptops and Projectors/Screens/ Audio (12 x $2000) $24,000

Program Evaluation $18,300

Further Dissemination funds (tuition, instructor costs, etc.) Puebla and Veracruz $50,000

ALSO Conference at Savannah GA Feb 2008 (Hall, Mora, Delgado, Damian) $8,000

Month 12-18

First Mexican ALSO Conference ( San Cristobal las Casas) $20,000
  - Proximity to Oaxaca, Guerrero, Guatemala and Honduras

On Line ALSO Didactic Course $10,000

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